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LECTURES ON THE DIAGNOSIS AND TREATMENT OF DISEASES OF THE HEART.

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LECTURE XVII.

EXAMINATION OF THE HEART.

The heart requires to be examined under several different points of view. The most important of these are its position in the thorax, and the relative situation of the parts of it; the size of the heart, as ascertained by percussion; the impulsion; the sounds, and their rhythm or succession; lastly, the mode in which the heart acts, whether in a regular or in a spasmodic, ill-defined manner. Besides these signs, which are strictly physical, we learn much as to the diseases of the heart from the sensations complained of at the præcordial region, the respiration and the impediments to it, the capillary and venous circulation, and, lastly, the surrounding disorders of the whole body, which arise from the cardiac region.

1. *Position of the Heart.*—In general terms, it may be stated that the heart is situated at the lower portion of the sternum, including nearly the whole breadth of this bone, and extending to the left of it, a short distance within the nipple; in height, the heart reaches from the intercostal space between the third and fourth ribs, to the base of the thorax. It occupies, therefore, the anterior and lower portion of the left side of the thorax, in a definite extent, and this portion so occupied is called the præcordial region, or, in other words, the region of the heart. The exact situation of the heart, and the relative position of its different parts and valves, are readily seen by reference to the annexed plate.

2. *Size of the Heart.*—The size of the heart is known by two phenomena, the anormal prominence formed at the cartilages of the fifth, sixth, and seventh ribs, and the dulness on percussion, which may become greater or less than it should be in the healthy state of an individual of a given fever and embonpoint. By the size of the heart we understand the whole taken collectively; hence, an enlargement of the muscular substance does not differ from the more external distension caused by effusions of pus or serum into the pericardium. Then the increase in dimensions is very considerable, the chest is thrust forwards, but the form of the prominence is different; when there is an effusion into the pericardium it is pyramidal, the apex of the pyramid at the upper portion; when it depends upon a real increase of the muscular structure, the projection is in general less marked, but more diffused, and forms an oval, the long diameter of which extends laterally, instead of vertically, as in the former case. The more exact mode of estimating enlargement of the heart is, however, by percussion. This is readily enough practiced, but to render it of practical benefit, the observer should retain an accurate recollection of the average normal dimensions in an individual of the general health and condition of the patient. It is true that the general health may have a very decided effect upon the heart, as well as upon the rest of the organs, but it here suffers with the rest, and the change is limited to a slight augmentation or diminution, corresponding with that of the muscular structure in general. The real advantages of percussion are much more decided when we desire to learn the condition of the heart, and its state as an individual organ. To do this, we must recollect that in the healthy individual the heart is not entirely overlapped by the lungs, but that a portion of its structure, as is seen by the plate, which is chiefly composed of the anterior surface of the right ventricle, is in immediate contact with the parietes of the chest. This portion varies in extent, partly from changes in the condition of the heart and pericardium, partly from lesions of the lungs and pleura. Thus, without any actual change in the heart, the percussion at the præcordial region may be rendered very dull from induration of the lungs, or pleuritic effusion, while emphysema may enlarge the lungs, and render the sound preternaturally clear in the region of the heart. A little attention to the condition of the lungs will in general obviate the chances of error.

The heart itself, when diseased, often produces a decided change in the results of percussion, which then depend upon alterations of form. In the natural state, the extent of dulness does not exceed a space of about two inches in length, measured along the sternum, and an inch and a half laterally; that is, the dulness extends to a short distance within the nipple, and about the middle of this space, just at the right margin of the sternum, it amounts in most persons almost to flatness. If the heart be enlarged, or if an effusion of liquid has taken place into the pericardium, the dulness is of course increased in proportion to the degree of enlargement or increase. When the dulness results from hypertrophy of the heart, it is more rounded in its shape than when it depends upon pericardial effusion; in the latter case, the original shape of the serous sac is still preserved, and the space in which the dulness is most evident is pyramidal, the apex of the pyramid being towards the upper part of the chest. The mathematical exactness of this mode of measuration is readily ascertained by a process which was very carefully pursued by Dr. Pennock a few years since; that is, forcing long needles at the limits of the dulness, and examining the parts perforated by them after the body was opened.

Impulsion.—The impulsion of the heart furnishes one of the least complicated sets of signs connected with this organ. It is produced, as is well known, by the contraction or systole of the heart, during which the point of the organ is quickly impelled against the ribs, striking near the cartilages of the fifth and sixth ribs a little within the nipple. In the healthy state of the heart, the blow or impulse is given almost exclusively by the point of the heart; hence the sensation is sharp and decided, as would naturally be caused by the quick stroke of a small surface against the thoracic parietes. If the heart is thrown into violent action by quick exercise, or by nervous irritability, the impulsion is increased in force, but the surface upon which it falls is still very limited in extent; should the bulk of the heart and the quantity of muscular tissue be increased, as in cases of hypertrophy, the momentum of the impulsion is much increased, but it is diffused over a much larger surface than in the normal condition of the organ, and the mass of the heart is applied slowly against the chest, as it were point after point, so as to give it a heaving or waving motion, instead of a sharp, clear impulsion. In low fevers, and in other diseases in which the powers of life and the strength of the patient are much diminished, the impulsion of the heart is decidedly lessened, and its force nearly destroyed. The diminished impulsion is then a good oracle in therapeutics, and affords us one of the first indications for a supporting treatment. The impulsion of the heart, it is evident, can only serve as a diagnostic sign, when the patient is still possessed of a moderate degree of strength; hence, in cases in which the muscular substance is really much increased, the force of the blow may be so much diminished that no stronger impulsion is made upon the parietes of the thorax than would result from a heart, which is not at all enlarged.

ORIGINAL COMMUNICATIONS.

Cases of Fatal but Chronic termination of Inguinal Hernia, from simple obstruction. By W. W. Gerhard, M. D.

It is rare that hernia produces obstruction to the passage of the fœcal matter through the bowels to a sufficient degree to cause severe and even fatal symptoms, without the mortification of the gut. These cases are, however, from time to time met with, and may cause much embarrassment to the physician; for the nature of the symptoms is such that they are not always supposed to belong to surgical affections. Two fatal cases of this kind have come under my notice.

Case 1. The first was in the month of October, 1835. The patient was labouring under an irreducible inguinal hernia, of moderate size, (not exceeding that of a small pullet's egg;) he was affected with nausea and vomiting, with obstinate constipation, beginning gradually and increasing for several weeks, when death took place. The tumour was perfectly free from pain, and very uniform in size and shape: the quantity of fœcal matter passed was small, but of healthy appearance and consistence. Vomiting occurred very frequently and finally consisted merely of the substances taken into the stomach, which were rejected almost as soon as swallowed.

The existence of the hernial tumour, notwithstanding the mildness and slowness of the symptoms, induced me to call a consultation of surgeons, and to desire putting the case into their hands. The gentlemen who were consulted in the case declined resorting to an

operation or other surgical means; all other modes of treatmeut proved unavailing.

On examination after death, the portion of the bowel contained in the hernial sac was found to be the ileum; the included fold was full of fœcal matter, but neither sphacelated nor inflamed; above the hernia the bowels were extremely distended by their ordinary contents, and below, they were shrunken and contracted.

There was, therefore, in this case, an obstruction sufficient to cause death without strangulation. It was of course greatly to be regretted that no operation was thought proper by the gentlemen who were officially called to decide as to its propriety; but, although their repugnance to an attempt of this kind was not well founded, it was conscientious, and not at all blameable.

Case 2. This occurred recently. A man between forty and fifty years of life entered the Philadelphia Hospital in a moribund state. The abdomen was distended and contained much gas, but was not tender to the touch, nor painful to the patient; the body generally was extremely emaciated. The patient was too feeble to give any further account of himself except that he was subject to dyspepsia for some months, had frequent vomitings, and was habitually costive. Some restorative medicines were given, but the patient sank twenty-four hours after admission.

On examination after death, the whole body was found to be extremely emaciated, the abdomen much distended with gas. The contents of the thorax were in a healthy state, but on opening the abdomen the stomach was found to be extremely distended, and evidently enlarged from permanent thickening, so that the thickness of the parietes was increased, and the whole organ was at least of twice the average dimensions. It contained a pale mucus, and its internal coat was thickened and mamillated throughout the greater portion of the pyloric half, thinned by the action of the liquid near the cardiac extremity, and of a general pale slate colour. The vascular injection was extremely slight. The small intestine was also distended with mucous liquid and with gas, the parietes much thickened. Near the extremity of the ileum it dipped into a hernial sac, at the right inguinal ring. The portion of bowels contained did not exceed the size of a pigeon's egg; it was of a bluish tint, the veins upon it much distended, but not inflamed or gangrenous. The circulation being evidently retarded, but by no means interrupted. At the point of constriction where the bowels passed out of the sac, the size of the intestine was much reduced; it was not larger than that of a child of three years; the colon was also much smaller than natural, not larger than that of a patient dying of chronic dysentery; it contained some well formed fæces.

These cases are both illustrative of death following the slow symptoms of hernial structure sufficiently tight to impede the progress of fæces without destroying the circulation.

NOTES ON MYOTOMY AND TENOTOMY.

BY REYNELL COATES, M. D.

To the Editors of the Medical Examiner.

GENTLEMEN,—My last communication concluded with an attempt to answer the objection so often urged against simple mechanical extension in club-foot, namely, its tendency to produce spasmodic resistance, or, in other words, an increase of the spasmodic action of the muscles already existing.

I pointed out the fact that, according to the usual course of events, the muscles become affected with marasmus from inactivity, until, after a certain length of time, their structure is so far altered as to render them incapable of troublesome spasm. The resistance to the extension is then no longer the consequence of the *action* of those organs, but their positive *shortening* by a change in their nutrition analagous to that which leads to the occlusion or coarctation of fistulous and other false passages, the abdominal rings in hernia when radically cured, &c.* But parts reduced to a condition nearly resembling simple, though condensed cellular tissue, yield readily, and grow rapidly under the action of moderate extending forces, and hence—so far as spasm is concerned—the propriety of the treatment of club-foot by properly regulated machinery alone depends solely on a question of time.

But, in certain cases, the contracted muscles undergo a series of changes very different in their effects from mere local marasmus:—the cellular tissue of these organs, instead of remaining the seat of a diminished, though altered deposit of fleshy fibre, becomes loaded with condroid matter analogous to that which constitutes the bones in the second stage of their developement. I have seen this transformation rendered sufficiently obvious in two cases of varus. Now, the stretching of a large mass of pseudo-cartilage is a very different affair from the elongation of a mere wasted muscle; and, here the operation of tenotomy is plainly indicated; not that the mechanical process is perfectly hopeless, but because the time lost in the former attempt would far outweigh the dangers and the ultimate weakness resulting from the after consequences of so trifling an operation as tenotomy.

It is folly to pretend that, even when there exists spasms of the extensors, their tendon can be divided without serious diminu-

* I have elsewhere argued at length against the doctrine of the radical cure of hernia by adhesive inflammation. See Final Report on the Radical Cure of Hernia, by a Committee of the Philadelphia Medical Society,—*American Journal of the Medical Sciences*, Aug. 1837, also Letter to Heber Chase, M. D., in *Chase on Hernia*, page 107.

tion of power for ever after: but when the chondroid degeneration just described has taken place, the evil is reduced to its minimum; because time is then allowed for the union of the extremities of the divided tendon to become firm and fibrous before tonicity of muscle can be restored, and only two or three inches of the new connecting medium intervenes, even when the foot is brought down immediately. When there is simple marasmus of the parts, on the contrary, it has been stated in the last note that some functional power usually remains; and under such circumstances, the muscular fibres must continue gradually to retract the superior portion of the tendon, from the moment of the operation up to the time when the new bond of union is rendered fibrous—a period of time measured at least by weeks, if not by months. Most of the writers on tenotomy have neglected this danger entirely; and as I must necessarily be somewhat more diffuse than usual at this point in the progress of our argument, I will venture to introduce a few illustrations of its importance.

A young class mate, who is still within the range of my personal acquaintance, had the misfortune to meet with a severe fall upon his back, when about thirteen years of age. The point of one elbow struck the hard ground violently in consequence of his efforts to save himself. The arm hung useless, and the elbow was much swelled. A practitioner, unused to surgical cases,—having been resident during all his professional life in the country, and never having been duly attentive to any hospital clinic—examined the part, pronounced the case a sprain, and ordered the arm to be suspended in a sling and regularly bathed!—The olecranon was broken, and drawn up some considerable distance! At the end of five or six weeks, according to the young man's account, the nature of the injury was discovered; but this was too late for remedy. The forearm could then be flexed with freedom, but could not be perfectly extended except when some other individual assisted the patient. Some months after the reunion of the fragments, the lad met with another fall, and in his involuntary efforts to avoid the consequences with his uninjured and more useful limb, the other olecranon struck the ground and was fractured.

The partner of his former physician attended the case, committed the same error of diagnosis, adopted the same mode of treatment, and effected nearly the same result!

This young gentleman is now nearly forty years of age. The superior fragments of both ulnæ are separated from the inferior fragments,—one to the distance of nearly an inch, and the other nearly two inches. The former, though connected with the inferior fragment by a well defined cellular band, is firmly adherent to the back of the os humeri, and the corresponding triceps muscle is scarcely distinguishable, even as a rudiment,—the other moves with perfect freedom, and the corresponding triceps, though disproportionately small, is as tense and active as its bulk would lead us to expect. Yet both forearms are maintained habitually in the semi-flexed attitude of sleep, in consequence of the unbalanced tonicity of the triceps and brachialis internus muscles. Both arms can be flexed voluntarily to their full extent, but that in which the fragment is adherent, is dependent almost exclusively on the force of gravity for its power of extension. Even on the side on which the triceps continues active, the limb cannot be fully extended, because the forearm being retained almost constantly in a flexed position, the posterior part of the elbow joint appears to have been considerably modified in form for want of functional exercise.

Again—An intelligent patient was admitted into the Pennsylvania Hospital, some years before my former connection with that institution commenced, (1819) with fracture of the patella. According to his own statement, the fragments were separated less than half an inch at the time of his discharge, and the limb was firm and useful. He left the house contrary to the advise of his surgeon, before the latter felt perfectly sure of the strength of the new deposits.

At the time of the great northern progress of President Jackson, this man lost an arm by the wad or the bursting of a piece of ordnance in firing a salute. He was again admitted into the Hospital in order to undergo an amputation, and I enjoyed the opportunity of examining the knee. The fragments were then separated to the extent of five and a half inches! The connecting band was flat where it was joined to the fragments, but took the form of a tense ligament, nearly round, and about as thick as the tendo Achilles, as it became gradually attenuated towards the middle of the interval between them. The limb was still useful, probably in part owing to remaining connections of some fibres of the two vasti with the lower fragment of the patella and with the fascia of the leg; but the rectus itself was apparently undiminished in lateral diameter, though shortened to the extent of more than one-third the entire length of its fleshy fibres! He was able to walk without limping or betraying lameness, but he expressly stated that he had been subjected to many falls, was compelled to exercise great caution in descending, and felt great fatigue and difficulty in ascending flights of stairs, in consequence of the feeble power of the extensors of the leg.

It is hardly necessary to prove the position that human nature strongly inclines us all to place full faith in the truth of what we evidently desire should be true. All have felt this disposition, and it is one of the most important, as well as difficult tasks in professional self-government to restrain it effectually—

but it is singular that some of those most ardent in the praise of almost indiscriminate tenotomy should be induced to act with such extreme incaution as they have done in drawing conclusions favourable to their views, in the very teeth of obvious general laws. There are those who, in arguing in favour of "bringing the heel down" immediately after the division of the tendon, venture to assert in broad terms,—acting evidently upon some vague generality founded on *the occasional presence of spasm in recent club-foot*—that although the muscle contracts instantly and forcibly at the moment of division, it soon relaxes itself again, *and suffers the divided extremities to approach each other until they come nearly or completely into contact.*—As if "step-dame nature," in her motherly affection for the most unfortunate and deformed among her offspring, had kindly uttered an especial order in council, modifying her Medean and Persian edicts, in amiable condescension to the intreaties of her favourites, the tenotomists! What pity that she has been less gracious to those who meet with fractures and luxations!—that we cannot persuade the muscles politely to relax and render tolerable and useful *one thousand and one* most ingenious but now useless contrivances for fractures of the thigh, and of the patella or olecranon, to say nothing of the facilities which such generosity would yield us in the removal of tumours and operations on the parietes of the abdomen, by allowing us fearlessly to cut and turn aside either muscles or tendons when they stand in our way,—well assured that if edges of the skin be brought rightly into coaptation, these *more tractable* organs would speedily "rattle into ranks," and throw no difficulties in the way of *le reunion immediate!*

I have said that, even when a muscle has exchanged the usual and appropriate deposit of fleshy fibre for something analagous to that formation which is observed between the apophyses and the bodies of the bones of young children, the whole skeleton of the condrilomatous fishes, parts of that of certain reptilia, &c.—the restitution of the foot to its normal position is still far from hopeless, when treated mechanically, though such treatment is decidedly contra-indicated in consequence of the extreme tediousness of its operation under such circumstances. If disposed to be governed by high authority in the face of facts of daily and hourly occurrence, it would be easy for an antagonist to smile at this position; for some high authorities have taught the doctrine that a tissue once structurally altered in character cannot resume its former condition, though no case of considerably misplaced fracture ever recovers without producing precisely this order of structural alterations in surrounding parts. As strong examples, of a similar nature, it may be well to mention two cases, the first of which was very remarkable.

A journeyman shoemaker, then resident in this city, applied to me some years ago, for advice on the condition of his arm and elbow-joint. The anterior portion of the right arm, from the neighbourhood of the wrist to that of the elbow, was greatly swollen and very hard. The hand and wrist-joint had lost all power of voluntary flexion, though the fingers, which were placed habitually in the demiflexed position, could be extended almost perfectly by a strong effort. The posterior portion of the forearm was nearly in a natural condition. On the anterior part were four round orifices, widely distant from each other, and resembling those seen usually in necrosis, and a fifth, of similar character, was seen about an inch *above the external condyle of the os humeris.*

The patient stated that the disease had been gradually approaching its then existing condition for about four months. An examination was made under the idea that there existed simultaneous necrosis of the radius and ulna. The probe entered but a short distance perpendicularly into each of the orifices before it took a deep and devious course somewhat in the general direction of one or other of the distant openings. In its passage, it obviously penetrated a canal through a substance as firm as cartilage, althongh, in several places, it evidently crossed the usual track of various muscles of the forearm, and occasionally grated, or rather jarred upon spicula of bony matter, which no where communicated precisely the sensation of a contact between silver and denuded bone. Confirmed in the erroneous diagnosis that the case was one of necrosis in which the sequestra could not be felt, on account of the tortuosity of the fistulæ and the enormous developement of the periosteum, the general health of the patient was carefully attended to, and the disease was treated solely by the adoption of constitutional measures for more than three months. But the impatience of the man, and his urgency for an operation was such as to induce a more rigorous examination, and finding a communication between two of the orifices on the radial side of the arm, one near the bend of the elbow, and the other about three inches lower down, I laid this track entirely open by means of a long director and the probe-pointed bistoury, which latter met with very considerable resistance from the mass of chondroid matter, nearly an inch in depth, through which it passed. This incision was made in the hope of finding a route by which the condition of the radius might be ascertained—but, no where was the probe permitted to approach the bone. About the centre of the track, another canal branched off towards a third external orifice on the ulnar side of the forearm.

A critical examination of the incision displayed a structure in which cartilage or chondroid matter predominated, intermixed with scattered signs of altered muscular fibre, in the condition seen in marasmus from inaction, and numerous spicula of bone. It was now evi-

dent that the case was not of the character of necrosis; and, as it seemed hopeless to expect union by the first intention, poultices were ordered, and the constitutional treatment continued—the administration of the mineral acids and a rather generous diet being its principal features.

Much to my surprise, the bottom of the incision became rapidly filled with healthy granulations. In a few days the whole forearm seemed to be slightly softer to the touch, and there was an increased yielding to compression in the immediate neighbourhood of the wound. Encouraged by this circumstance, I traced and laid open the sinuous canals, throwing all the orifices into one, at the expense of seven or eight inches of incision, laying nearly bare at one point the external lateral ligament of the elbow, but no where meeting with well formed muscular fibre, or finding any reason to infer disease of the bones or periosteum. Pressure by the roller, and poultices over the roller, were employed for a considerable time with the double intention of maintaining suppuration and promoting absorption; until, finding the hardness rapidly disappearing from the forearm, the dressings very troublesome, and the ununited remains of the incisions were healed under the action of adhesive strips, and dependence was placed solely on the roller. In a few months the flexors and pronators of the forearm *recovered their functions to a very considerable extent.* No doubts remained of the reconstruction of the proper tissues, the case approximated to a perfect cure, and the patient, probably dreading his bill, very wisely *ran away!* I must apologize for the want of more accurate specification of dates in this and other narratives of cases, by stating that the proper notes, together with those of numerous other highly interesting occurrences, and the manuscripts of three years of labour spent upon a surgical bibliotheca, appear to have been lost in the confusion growing out of the irregular movements of the Navy Department in relation to the original South Sea Expedition.*

The second case, to which allusion has been made, was one of tortocollis, occurring in the practice of my friend Dr. Barnes, of Poughkeepsie, N. Y., who has several times performed the operation of myotomy in that species of deformity. In this particular instance he informed me that the contraction of the sterno-cleido-mastoideus muscle was so great that the mastoid process was drawn to considerably within two inches of the sternum, (the nearest practicable voluntary approximation, I find by measurement, to be from three inches to three inches and a half.) On dividing the muscle, it was found to be entirely transformed into chondroid matter. The head was gradually restored nearly to its natural attitude by mechanical means, which slowly overcame the established malposition of the cervical vertebræ consequent upon the long continued twisting of the neck, and the case was still under treatment at the time of our conversation (September, 1840.) The muscle had been then regenerated so far as to give very obvious proof of its functional action.

Having now pointed out two cases of exception to our argument in chief,—the discussion of the relative advantages and disadvantages of tenotomy in the mechanical treatment of club-foot,—one of which cases is the actual existence of spasmodic action equally interdicting both methods of treatment, and the other consists in a chondroid transformation of the contracted muscles, a very rare affection in which tenotomy is decidedly indicated, we have arrived at a point which requires me to close for the present.

* It will require all the talent and industry of the few able naturalists attached to the present Expedition to repay the science and the arts of the country, for the time, money, life, and material sacrificed to the folly of those who crushed the former undertaking.

THE MEDICAL EXAMINER.

PHILADELPHIA, OCT. 30, 1841.

EPIDEMICS OF THE SUMMER AND AUTUMN OF 1841.

Taking the season together, it has been unhealthy throughout the United States. The eastern states with their usual immunity against the diseases of warm climates, have almost escaped, but throughout the greater part of the United States the summer diseases have been unusually prevalent, and have extended to localities which are ordinarily exempt from their visitations, while other places in which the malarias are endemic have suffered from them to a severe and often fatal degree.

It is rare for remittents to appear in the thickly inhabited parts of the city of Philadelphia, but such cases have not been at all uncommon during the present season. It is true, that in many instances the disease was evidently contracted in the country, but such an origin was not apparent in every case—a strong proof of the extension and prevalence of the series. The epidemics have, as usual, varied during different parts of the season, in different parts of the country; in the hilly districts dysentery prevailed throughout the summer and early autumn; in the flat country, and near rivers, dysentery appeared in the months of July and August, but became much less com-

mon in September and October, when fevers were more rife. But there was in many cases a close connection between the two classes of disease, one passing as it were into the other, sometimes appearing simultaneously in the same patient, at other times different members of the same family were taken down about the same period with dysentery and fever, so that there was probably one cause producing different effects. The epidemic which visited a large portion of Chester county, in this State, was almost confined to dysentery: the face of the country is free from the usual causes of malaria, and the district is in general remarkably healthy, but, during the present season, a severe, and often a malignant form of dysentery was prevalent, causing many deaths. It assumed the malignant type very early, with great prostration of strength, reddish fœtid stools, and other signs of mortification of the mucous membrane.

The remittents and intermittents of the vicinity of Philadelphia appeared later in the season than usual; few cases being seen before the month of September. The two forms were, as usual, convertible one into the other, but the proportion of remittents, compared with intermittents, was larger than usual, and the remissions were less marked, so that the fevers were the pseudo-continued, resembling in some respects typhoid fevers, but differing in the absence of some of the characteristic symptoms, such as the mode of invasion, the spots on the abdomen, and the progress of the disease. Still, as the cerebral symptoms were well marked, and in a great proportion of cases attended with stupor and muttering delirium, the fever would have been called typhoid by those who do not restrict the term to the single form of disease to which it should be given; in other words, some of the prominent symptoms of typhoid fever were closely imitated in many of the remittents of this year. This form of remittent, as is generally the case, has borne quinine badly; in fact, it belonged to those cases in which cinchona was not the remedy, and was only tolerated, like other tonics, after the conclusion of the fever during the feebleness of convalescence. The best treatment was bleeding when the reaction was high, but generally merely local depletion, mercurial, and other purgatives, cold applications to the head, and the usual diaphoretic drinks. The other form of remittents was much more distinctly paroxysmal, the fever declined or ceased during the remissions, and the paroxysms in some cases were mild, and in others were accompanied by profuse stupor and prostration; in other words, assumed the type known on the continent as pernicious intermittent, and in this country as congestive fever. The free employment of blisters and stimulating applications to the skin and enemata during the paroxysm, with the liberal use of quinine in the remissions, was absolutely necessary.

These forms were almost the only ones met with; there were, we believe, no cases of the prolonged remittent with jaundice and intense cerebral disturbance, and but few of the mild form which prevailed here in the year 1839, in which the fever was extremely slight, the cerebral functions almost intact, and the disease terminated quickly in recovery, or subsided into the usual intermittent type, which was then readily cured by quinine. The forms, however, of one continual intermittent are so irregular and diversified, that the modifications of the disease in different parts of the country were probably extremely numerous.

In a few cases of great severity the fever was complicated, and, at first, masked by pectoral inflammations. In these cases the patient had been exposed to miasmatic influences, and afterwards to cold, wet, or other ordinary causes of inflammations. As soon as these had subsided, the autumnal fever was developed with unusual severity.

The anxiety which we naturally feel to diffuse as much information as possible as to the epidemic diseases of the country, induces us to request our contributors to furnish any facts of interest which may come under their notice, in relation to the diseases of this year. They may render essential services by their contributions.

MEDICAL SCHOOL OF PHILADELPHIA.

The winter session of the great medical school of Philadelphia has commenced, and the introductory addresses of the professors of the three collegiate institutions which grace our city are in full progress. It becomes our duty, as journalists, to note, and perhaps occasionally to comment upon the events occurring during the term which are calculated to awaken the attention or effect the interests of the

whole profession, at present or prospectively, and we shall endeavour to perform the task in a perfectly impartial manner.

This journal is the organ of no party in medical politics, nor is it bound by any merely local considerations, but is designed to forward the progress of professional knowledge, and assist in elevating the professional character in an honourable and courteous manner, and on principles purely cosmopolitan. If in noticing, and possibly uttering an occasional criticism upon the proceeding of the very numerous medical institutions of the country, an undue share of attention should appear to be given to the claims of those immediately around us, this will not be the result of any narrow calculation or partial views, but may be safely attributed to our local position alone.

Within the last fifteen years the means of acquiring information in medicine and the collateral sciences in Philadelphia have been vastly increased, partly by the multiplication of charitable and other foundations, partly by improvements in the organization of those previously existing, and partly by the establishment of more numerous private lectureships or combinations of teachers in the several departments. But although the resources for instruction have been more fully developed here than in any other American capital, there is still room for immense improvement in this respect, and the spirit is now fully awake which must bring about its accomplishmeut.

To those who visit our city for the sole purpose of obtaining a degree—whose residence among us is restricted to the few short months of the established curriculum, a knowledge of these resources, though important, is not so absolutely essential as to those who possess the means and disposition to reap every advantage afforded them without so close an attention to the amount of time expended in acquisition. The gentlemen who are placed in the closest relations with the medical class have observed with gratification that, while it maintains its numbers very steadily, there is an obvious annual improvement in its material, and there is just ground for regret that so few of the numbers composing it are made aware of the value of the information obtainable at other seasons and from other sources than the collegiate lectures and the winter session. We shall endeavour hereafter slowly to extend the knowledge of these advantages within the range of our circulation, so that the preceptor at a distance, and the pupil even before his arrival, may form a better idea of the extent and boundaries of the field on which the latter is about to enter. To accomplish this purpose suddenly would be impossible—so numerous are the institutions and combinations *that are, or should be made tributary* to the medical school of Philadelphia.

An honourable rivalry between similar establishments exists amongst us, not only in the case of the colleges, but in other instances also. Long may it continue! As long as it can be conducted on terms of mutual good feeling, and in such a manner as to elevate, instead of depressing the dignity of the profession and the quality of medical instruction! The time has arrrived when the only mode in which any particular school can gain and preserve preeminence is by rendering itself superior in merit. It is no longer possible to break down an institution that is governed upon correct and enlarged principles, by drawing off or striking from the list of its supporters a few distinguished names. The importance of individuals is diminished as the mass of talent and learning in the profession increases with the growth of the country, and all such attempts must fail. It has become equally impossible to secure and retain success by a loud appeal to the prejudices of the common public, and by displays which captivate for the moment, unbacked by solid learning.

The school that pursues an honourable, gentlemanly, professional course among its competitors, will always be supported, if it possess the means of instruction in hospitals, libraries, and cabinets, the ability to teach, in able professors and proper subsidiary aid, and a disposition to expand with the progress of the age. Philadelphia continues to enjoy these advantages. Should she, through folly, lose them, we would be among the last to raise a hand to save her from the consequences. The same principles must also control the fate of the contending rivals within her bosom. At present, the medical atmosphere is, perhaps, unusually clear.

The class, so far as we can judge from the usual assemblage at the introductory lectures delivered at the different colleges, fully main-

tains its pre-eminence in numbers, in the face of ever active competition, and the disturbance of the currency. Its positive amount, and the ratio of its divisions among rival foundations, we have, at present, no authentic means of estimating. When ascertained, it will be duly reported.

We have snatched from the time necessarily devoted to other pressing engagements, a few moments only, for the purpose of hearing portions of at least one of the addresses delivered at each of the collegiate establishments of our school; and in noticing them, the most correct method of avoiding all suspicion of party bias, will be to observe an alphabetical order.

Lecture of Dr. Bird.—Although the magical number *six* no longer controls the appointment of a medical faculty, and the school of Philadelphia now offers a band of collegiate lecturers exceeding twenty—although the extreme right of the conservative party in medical politics sometimes declares that "it has become almost a matter of distinction *not to be a professor*"—the advent of a new appointment to ministerial office in the collegiate branch of medical instruction is, and ought to be regarded as an important event in professional annals. It effects the progress of the science not in a temporary, but in a permanent manner; for the seeds of instruction collected in early life preserve more accurately the peculiarities of the soil in which their parents grew, and extend those accidental influences to posterity more surely and powerfully than the tree that is transported from one region to another. The choice of a good or a bad teacher in medicine in a school of extended reputation—which that of Philadelphia ever has been—produces effects in future times upon the advancement or deterioration of the science and its institutions, after the name of the individual is almost forgotten.

At the Pennsylvania College, last evening, we had the good fortune to hear the latter half of the "maiden address" of Dr. Bird, and must plead guilty to an agreeable disappointment. It is almost impossible, in many cases, to resist entirely the effects of popular prejudice, even when our own experience has proved its fallacy, and we could not entirely resist the fear that the application of acknowledged genius to the lighter class of literary labours might have destroyed the habit of close observation, and the respect for inductive reasoning so necessary to the labourer in his present abstract field of duty. That this is not the case, is sufficiently certified by the character of the address alone. Classical, we knew it would be, from some knowledge of his earlier tastes and habit of thinking; but we were not prepared for the terseness, the vigor of style, and the freedom from exuberant ornament which carried conviction to the mind of every one that he was listening to a scholar, not liable to be led from the direct path of research, to sport among the flowers of the imagination blooming by the way-side. That he *saw* them, appreciated their beauty, and was prepared to lighten the tedium of the journey by an occasional reference, was sufficiently evident, but he spent no time in weaving garlands. There was no unnecessary flattery of others or the class—no leaning upon great names to buoy himself up, as though conscious of the danger of sinking in the current—no catering to a vitiated taste at the expense of the dignity of his subject and position. We speak from what we heard, but feel no fear that the author of the latter portion of the lecture could have rendered these acknowledgements unjust by any previous remark.

There was but a single point which seemed to provoke criticism, and this *appeared* the result of a habit of preferring the study of settled facts and incontrovertible conclusions to the strict analysis of the relative merits of hypotheses none of which are entirely well founded, though embracing many truths. It struck us, at the moment, that he might prove—*very slightly*—ultra-eclectic: and even this is rather a virtue than a fault in a teacher of the Materia Medica. But we must protest against ranking the vague dream of Homœopathy among the medical *theories*. It does not rise to the dignity of a hypothesis—for it is not placed in such order as to be even worthy of inquiry. It stands by the side of the *miscalled science* of Mesmerism, in which a number of most curious and important physical facts, well worthy of investigation, are attempted to be associated on certain *miscalled principles* drawn from regions *beyond the land of dreams*. So far as we have been able to collate and rigidly condense the fundamental dogmas of that which is not a doctrine, because it is unteachable, they are as follows:

1st. Effects cannot be distinguished from their causes!

2d. The half, *when properly triturated*, is greater than the whole!

3d. The best way to cure a disease is to make it a little worse!

In manner, Dr. Bird is agreeable and impressive. Some slight undue rapidity of utterance, a little occasional falling of a voice not lacking in power until it became inaudible at the rear of the room, and the absence of free movement, were probably due to a trace of the natural embarrassment which has often caused us to *hug the desk* much more affectionately on far less trying occasions. In short—the lecture was any thing but *a flourish of trumpets.* Let us now look in upon friends of longer standing in the ranks of medical teaching.

Lecture of Dr. Dunglison.—The principal characteristic of this discourse, delivered on Monday evening at Jefferson Medical College, was good nature. It would be supererogatory to speak of the style of this well known writer and teacher; his professional merits and peculiarities are as wide-spread as the profession in his native and adopted countries. The former rank deservedly high;—the latter are proper to his temperament. We could not but admire the care, without the appearance of care, with which he so adroitly managed to avoid every expression which could be misconstrued into personality or severity, placed as he is, in the midst of rival institutions, the one the parent, and the other the offspring of that with which he is at present connected.

Dr. Dunglison has been deeply involved in the changes and revolutions of the profession for a good many years, and has passed through many trying scenes, making fewer enemies than most men, under similar circumstances, would have gathered around them; and this is no mean praise.

The only points in the lecture which call for remark are the statements of the resources of the college in the way of cabinets, &c., the compliments paid to the operation of tenotomy, and those addressed to his colleagues.

It has been said, in the earlier part of this article, that the numerical increase of the profession was rapidly rendering individuals less important in science, and that it was no longer possible to break down the standing of *a really well governed* school by removing particular props, on which, for the moment, its safety may seem to depend. This remark was made in a national sense: the present assertion is true, perhaps, in relation to our own city only. Such has been the long continued devotion to medical and natural science generally in Philadelphia, that cabinets and resources for the formation of cabinets are multiplied beyond the demands of mere elementary teaching. Such material is accessible within reasonable time, and by means of reasonable exertion on the part of any body of teachers who are disposed to meet the requisite expense and trouble. No faculty in this city could be broken down or permanently injured by the total destruction of its cabinets, small as these generally are in comparison with our resources. We thought the semi-deprecatory remarks on this head unnecessary, but perhaps they may have been proper and requisite before an audience of students, many of whom are among us for the first time.

Dr. Dunglison ranked the operation of tenotomy as among the most important of modern surgical triumphs. This is elevating it far above its proper position. Though our pages bear a series of articles on this subject tending to condemn the indiscriminate resort to this kind of operation, the war is not against the operation itself, exceedingly simple as it is, but against the spirit of hyper-operating which has become, of late, so fashionable as to disgrace the profession. We feel perfectly confident that his colleague, the Professor of Surgery, will agree with us in this opinion, and it is only the influence of the undue praise of a proceeding so often resorted to without sufficient cause, upon the minds of the less mature and more ambitious spirits, that is to be deprecated. That tenotomy is not unfrequently proper in various deformities, no one who understands the principles of surgery will venture to deny.

The compliments paid to his several coadjutors, by Dr. D., were well turned and appropriate. One of the richest of these fell upon the Professor of the Institutes and Practice, who was the first to intimate, in this country, the processes of Farraday and Thillorier on the liquifaction and solidification of carbonic acid gas.

Dr. Wood's Lecture.—At the University of Pennsylvania, the only discourse which we have been able to attend, was that of the professor of the materia medica, and even of this the conclusion only. It were supererogatory to say that the style was lucid and classically chaste. The labours of his pen are always thus. He was descanting at the moment upon the various and impudent pretensions of quackery in a manly, dignified, and decided manner—not casting away indignation upon that which is beneath it. Upon the subject of the so styled animal magnetism, he took the proper ground, acknowledging the fact of the cataleptic condition into which certain classes of patients are thrown by those who practice certain curious manipulations, and stating the truth, which must be perceived by all who are sufficiently philosophical to reason correctly, that the physical influence of the nervous system of one individual over that of another, is not *absolutely beyond the range of physical possibility*, he condemned the spirit which would ridicule those who are disposed to investigate the facts in relation to this subject which furnish legitimate data for the furtherance of inductive philosophy while he repudiated the idle nonsense which loads these facts with miraculous circumstances.

As this lecture should be, and probably will be published, we will close this article with the remark that the only possible differences of opinion on animal magnetism capable of discussion between really sound reasoners, will turn upon the extent and nature of the nervous functions, and their appropriate stimuli. It is a question purely physiological, and therefore physical—difficult, it is true, but solvable. In future numbers notice will be taken of the experiments now in progress, and of the peculiar views of some of our observers on this subject which so many fly from with idle dread.

FOREIGN.

On the Curative Influence of Galvanism in some of the Organic Diseases of the Eye. By Dr. Lerche, of St. Petersburg.—[The following is the report made by Dr. Lerche, one of the principal physicians of St. Petersburg, on the application to opacities of different parts of the eye of the galvanic action which Dr. Crusell, a physician of Finland, was said to have employed with great success for the removal of other kinds of thickening, &c., consequent on inflammation.]

To Dr. Crusell of Finland is due the honour of having employed galvanism in a new and peculiar manner for the cure of organic diseases. Having been attracted by the treatise on the subject which he had sent to the Imperial Academy of Sciences, I had proposed to repeat the galvanic experiments instituted by him on the diseases of the lens in animals. The necessary apparatus was not yet completed when Dr. Crusell himself arrived at St. Petersburg; we therefore determined to experiment in his presence and with his assistance. For the subject of the first experiment we chose a complete leucoma of the cornea, which was deemed incurable, and in which, therefore, nothing could be lost, and perhaps something might be gained. The patient, a boatman sixty-eight years old, was in our hospital for chronic inflammation of the other eye. Our apparatus, according to the directions of Dr. Crusell, consisted of a simple galvanic circle of one zinc and one copper plate, both immersed in dilute sulphuric acid. The wire proceeding from the copper plate, which we named the copper-pole, was placed in contact with the leucoma; that coming from the zinc-plate, the zinc-pole, was made to touch the patient's tongue, and the galvanic current was maintained for two minutes. The patient did not suffer in the least degree, neither did any unpleasant symptoms follow the operation; on the contrary, the chalky dulness at the margin of the cornea appeared somewhat thinner and clearer. The operation was repeated after three days, and we saw again a partial alteration in the state of the leucoma; and the patient, on his part, asserted that he had increased perception of light.

The idea was now not remote to apply galvanism for the cure of opacities of the internal tissues of the eye. The results obtained by Dr. Crusell, in his experiments on the eyes of animals, strengthened our expectation of doing good, and we had opportunities enough of repeating them on eyes which had been regarded as almost or quite incurable. For safety's sake, however, we determined first to see the effects of the operation on some animal, and a young pig was chosen for the purpose. A fine cataract-needle fixed on the zinc-pole was passed through the cornea into the crystalline lens of the right eye, and the wire from the copper-pole was stuck into the ear. After thus remaining for four minutes the pupil began to grow turbid, and the operation was discontinued on the right but repeated on the left eye. Some days after, we found completely-formed cataracts in both eyes, and the pig was quite blind.

Now, according to the theory, the artificially produced dulness of the lens ought to be removed by a reversed galvanic action, and be-

fore we could feel justified in undertaking similar experiments in human eyes it was necessary to obtain the proof that such would be the case. After ten days, therefore, we proceeded to this second operation. In three minutes, (the galvanic current being maintained through the wires which were now so placed that the copper-pole was connected with the eye and the zinc with the ear,) there appeared bubbles of gas in the pupil, and the process of solution seemed to be going on; the experiment was therefore at once brought to a close. The pupil appeared smoky and less dull. In four days it had almost regained its natural clearness; and the sight, so far as we could judge from the animal's action, was restored. In the cornea there was an opaque spot around the aperture made by the needle. This result at once determined us to make an experiment of a similar kind on the human eye.

We chose an old copper-smith from Finland, who had a long time previously been successfully operated on for cataract in the left eye. The right eye had presented a firm yellowish-brown capsulo-lenticular cataract, which had adhesions to the iris. It had been once depressed but it rose again; and in another attempt to break it up, nothing more could be done on account of its hardness, than the making of one vertical cut through its substance. This, however, rapidly closed, and for two months afterwards a variety of means were employed for the solution of the cataract without the least benefit. It was now very large, and lay close behind the widely dilated, somewhat irregular, and immovable pupil. The patient had a perception of light through it.

The galvanic operation was commenced in the presence of Dr. Crusell, in the forenoon of the 11th of November. It was very surprising to us to see, when the fine cataract needle fixed on the copper-pole was inserted into the lens, and the zinc-pole laid on the patient's tongue, how, in less than a minute, the cataract swelled up, increased in size, seemed to press against the cornea, and then suddenly burst into three peices, of which one was carried upwards and inwards, and another towards the temple, and the third projected downwards through the pupil into the anterior chamber. The triangular fissure left between them appeared clear and black. We now thought it best, as this was the first experiment of the kind on a living man, to stay the galvanic action. The patient could already see sufficiently to discern, with his right eye alone, both a finger held before it, and the face of a person standing in front of him. The operation lasted a minute, and neither produced pain or was followed by inflammation or any other bad symptoms.

Here the history ceases; the authors thought they had better leave the case with a limited amount of amendment, than run the risk of marring the advantage they had gained, and of throwing unnecessary discredit on the operation by going further. The facts, however, seemed to merit record as proofs that the plan is without danger, and offers some prospect of effecting a permanent cure of the disease.—*Brit. and For. Med. Rev. from Medicinische Zeitung.* Juni 16, 1841.

In these days, so rife in ill-digested schemes for worse than useless operations, it is almost dangerous to exercise the proper duties of a medical journalist by calling the attention of the whole profession to striking novelties, lest our notices should fall into the hands of those whose love of notoriety and its immediate monetary results renders them oblivious of the honourable laws of professional trust. There are those who will be ready enough to seize upon the idea growing out of the experiments of Dr. Crusell, and acted upon by Dr. Lerche and himself, without the knowledge and discretion necessary for the regulation of such an agent as galvanism, when employed upon the delicate tissues of the interior of the eye. We should not be surprised to hear of the *explosion* of many crystalline lenses, within a few months, among our restless and enterprising countrymen. The whole subject of galvanism and electricity is beautifully obscure, and admirably adapted to the purposes of intra-professional empiricism, as well as that which flourishes so vigorously among those who make no claim to fellowship with us. If, then, as well may happen, our daily papers should hereafter furnish us a daily dish of operations in which the lens had been *splendidly* "burst," and the pieces "projected" to a distance by the agency of wonder-working galvanic plates and wires, it is desirable that some kind friend of humanity should be upon the watch, to let us know the ratio of ruined eyes resulting within the three weeks following the *display*. The official bulletins of such transactions usually relate no more of the history of such cases than is witnessed at the moment. A little narrative of ultimate results would be the death of many an ephemeral glory in surgery, that now lives long enough to cause much human suffering, and undermine the public faith in medical ability.

Our object in these remarks is not *to condemn*, but only *to caution*, for we all are well aware that electricity and galvanism are important remedial agents, and regard the expe-

riments of Drs. Crusell and Lerche as deeply interesting. It is to be regretted that the extract contains no more particular account of the apparatus employed, and especially that no statement of the size of the plates of zinc and copper is given. This information we will endeavour to obtain for our readers as soon as practicable. The great fault in most of the applications of imponderable agents to the treatment of disease has been the use of undue power. We well remember to have succeeded, almost immediately, in curing a local paralysis of the arm in a case in which the disease had been extended and exacerbated by shocks from an eight-ounce Leyden phial. Our only remedy was the application of shocks from a phial of one ounce! Even in galvanic experiments upon the recent dead, the purpose of the operator has been frequently thwarted, in great degree, by the unnecessary energy of the pile, which has crushed, destroyed, or thrown into an instantaneous collapse, the nervous susceptibility which it was designed to stimulate.

The effect of electricity and galvanism upon the process of absorption has seldom been the subject of well-ordered experiment. That the former has a powerful influence in promoting secretion is well known. Sparks drawn from the body of a patient seated on an insulated chair may be made very readily to double the discharge of a seaton or issue; and, many years ago, we freely employed this method with advantage in the practice of the Pennsylvania Hospital. If the process be repeated by drawing the sparks daily from the same spot for a week, there usually follows a free crop of pustules, resembling those produced by the plaster of tartar emetic. The stream of electricity flowing from a point upon the cornea was formerly recommended in leucoma by the advocates of this class of remedies, and Singer and others claim to have effected cures in this manner. In several faithful trials, we have failed in the attempt to make any impression on the opacity. But it would appear that, in the experiments of the Fin and Russian observers, it was the negative and not the positive pole that incited the absorbent process, while, in the electric trials, as far as our recollection of authorities extends at present, the positive fluid was employed in all the cases.

The plan proposed would be perfectly safe, as well as easy of application on opacities unattended with inflammation, provided the zinc and copper plates were small; but in the action of acupuncture on the lens, it would appear, from the "bubbles of gas in the pupil," that actual chemical decomposition was effected. It would not require the sudden distention of any great quantity of gas in the eye to endanger paralysis of the retina by compression; and, independently of the probability of inflammation, this circumstance might require some caution in the employment of plates of much power. To say the least of this seemingly formidable operation, common prudence obviously demands a full trial of the apparatus upon opacities, so as to establish some clearer views of its modus operandi, before venturing upon the far more dangerous puncture of the lens performed by Dr. Lerche. Such experiments do not require hasty action, and the surgeon may well wait a few months for further information, before running the unnecessary risk of tampering unwisely with parts so delicate as those about a cataract.

The careful observer of the current of scientific discovery, may now perceive the dawning of another era in the progress of medical theory. The tendency of chemical investigation is towards the discovery of such affinities as may account for many of the hitherto occult steps in the processes of absorption, deposition and other vital phenomena upon principles purely chemical; and while analysis encroaches upon the dark domain of the *vital principle*—that high sounding apology for ignorance—on the one hand, the microscopic observers, the vegetable physiologists, and the special naturalists, are beginning to attack our established notions of transcendental vitalism in other directions. Time was when it was held that living tissues could not tolerate the contact of living bodies of another species unless inclosed in cysts or contained in cavities, but now we know that, in diseased conditions of the vegetable and animal frame, the germs of other individuals may rest inactive, or may grow and flourish for long periods of time without destroying the individual on which the parasites remain engrafted. The various forms of dry rot in woody fibre are believed to be cryptogamous plants, and some of them are seen in

full activity—diffused, and not incysted—within the substance of living but sickly trees. Some years ago, the naturalists of the north were thrown into general agitation by the announcement of the discovery of an insect at the south whose body in dying (oh! shade of Narcissus!) converted itself into a flower! Specimens were forwarded to the Academy of Natural Sciences. They proved to be the undecayed bodies of mole crickets or grillo-talpæ,—whose vanity must have been indeed preposterous if it could induce them to rival, with their ungainly figures, the beautiful Grecian boy! From each of these sprung forth a tall and somewhat complex cryptogamous plant; bearing no inconsiderable resemblance to a flower. It was the general opinion that the germs had been taken by the animals with their food; that they had retained their vitality and had germinated immediately after the death of the insect. Rumor asserts that their growth preceded the fatal moment, and that these gnome-like denizens of the soil were compelled to visit the upper air, bearing about upon their shoulders the foreign trophies of another kingdom until their juices were absorbed and they sunk beneath the weight of their undesirable decorations. In these days, when certain modern schools of philosophy lean too strongly towards materialism,—if, as the following extracts seem to show, our living bodies may be made the food of cryptogami, it is certainly time to review some of our physiological opinions and brush up our *mouldy ideas!*

On the development of Cryptogamia in the tissues of living Vertebrata. By MM. Rousseau and Serrurier.—In a memoir on the diseases of the organs of the voice by the above gentlemen, it is related that a male paroquet affected with laryngeal and pulmonary phthisis died in 1834, and on examination there was found in the abdomen between the intestines and vertebral column a species of false membrane, on which there was a greenish and pulverulent mouldiness, which adhered so slightly that on blowing it disappeared as the finest and lightest powder. This mouldiness has been several times observed in different parts of the body; most frequently in the pelvis, between the kidneys and the viscera, on the principal vessels of the heart, between the ribs and the lungs. Pigeons and fowls are most particularly affected, especially those inhabiting cold and moist places, and in rainy seasons. Nevertheless this phenomenon has occurred in animals of a different organization, in a hind (*cervus axis*) and in the earth tortoise, a native of the Indies (*tesdudo indica.*) A similar fact has recently been communicated to the academy by M. Deslongchamps.

At the sitting of the Royal Academy of Sciences, July 5, 1841, M. Dumas stated that Gruby had discovered that one of the varieties of porrigo is owing to the development of a vegetable beneath the epidermis. M. Breschet remarked that the *porrigo favosa* was the form studied by M. Gruby.

Gazette Médicale. Juillet 17, 1841.

M. Kettner has since written to the Academy to claim for Dr. Schönlein, successor to Hufeland at Berlin, the priority of indicating the existence of a vegetable in the crusts of *porrigo favosa*, a fact which is published by him in *Müller's Archiv.* M. Kettner states that Dr. Schönlein has established in many cases of *porrigo lupinosa* the vegetable nature of this affection, and therefore the discovery cannot be attributed to M. Gruby.

Gazette Médicale. Juillet 24, 1841.

M. Gruby has made very minute observations on the physical and chemical properties of this vegetable, and has succeeded in innoculating it on cryptogamia, thus transmitting disease from man to vegetables, but only succeeded once in seventy-six trials. He failed to communicate the disease by inserting the vegetable into the arm. This subject is so interesting and important in connexion with the subject of animate contagion, that we shall wait with anxiety until the report of the committee is published.—*Ed. Rev.*

On Syphilis in Pregnant and recently-delivered Females. By M. Huguier.—M. Huguier has made a long series of observations on this subject, and has arrived at the following conclusions:

1. The sole primitive phenomena of syphilis is sometimes a pustular eruption at the vulva. This is often the commencement of chancre. 2. Purgatives are not proper for pregnant females tainted by syphilis. 3. Abortion in syphilitic females is rather in consequence of the exhibition of mercury than of the disease itself. 4. The venereal disease has not the grievous influence on pregnant females which is attributed to it. In twenty-seven females in this condition, only three are dead, and probably their death resulted from lesions unconnected with syphilis. 5. The mercurial treatment does not always preserve the infant nor protect from relapses, and often produces serious results. 6. The sublimate is the most dangerous among the mercurials, and mercurial frictions are preferable to it. 7. Syphilis is very often hereditary; and it ordinarily declares itself from three to thirty days after birth. This last remark is important, for if the child be examined on the first or second week, it is de-

clared healthy and sent out to nurse, probably with the effect of infecting the female.—*Ibid.*, *from Archives Gen. de Med.*

DOMESTIC.

Amputation of the Thigh.—We extract with pleasure, from our worthy contemporary of the Boston Journal, the following letter from Dr. Trowbridge. The statistics of amputation in this country derive additional interest at the present moment from the light recently thrown upon the question of the relative mortality of operations in France and the United States, by the labours of Dr. Norris, of this city, and others. A body of well authenticated surgical statistics of this character, drawn from various sections of the country, in aid of the observations made at the various hospitals, would probably lead to results important to the improvement of hospital discipline as well as private practice.

Several valuable facts are noted in the letter, throwing light on the chances of life after amputation in fungus hæmatodes, white swelling, syphilis and scrofula. We plead guilty to some surprise in observing that twenty-six of the eighty-five cases of amputation were performed on account of necrosis; and that so many as twenty-three patients were affected with necrosis involving the knee joint should occur in the private practice of a single individual. Is this owing to an unusual prevalence of diseases of the bones in the particular neighbourhood of the writer? With us true necrosis, actually involving joints, is very rare, and amputation for this disease uncommon. We ask this question, not censoriously, but in good faith, as the terminology and diagnosis of diseases of the bones is still in much confusion.

Four cases are classed under the head of incised wounds dividing arteries and nerves, and three of the operations were performed for aneurisms of the arteries of the thigh. Such instances—particularly the former—could not be devoid of further interest if stated in detail, and we hope that Dr. Trowbridge will favour the profession, through the same or some other convenient channel, with a more complete history of those cases, if sufficient notes of them are still in existence.

Sir,—Within a few days past I have made my eighty-fourth and fifth operations of amputation of the thigh. All these operations have been made in my private practice, during the period of 34 years. The cases occurred principally in the northern portion of the State of New York. I made many amputations of the thigh, while attached to the U. S. Army, during the late war. I cannot state the number, or detail their causes. I am able to state the causes which made amputation necessary in my private practice, and the results following the operations. Eleven of these operations were on females, and seventy-four on males.

2	Cases of	Fungus hæmatodes.
3	"	Necrosis, under the age of 10 years
2	"	Osteo-sarcoma.
3	"	White swelling of the knee-joint.
1	"	Periostosis and destruction of the tissues of the knee-joint.
11	Females.	
23	Cases of	Necrosis, commencing on the femur, or tibia, and involving the knee-joint.
7	"	White swelling of the knee-joint.
6	"	Spina ventosa of the tibia, involving the knee-joint.
10	"	Fungus hæmatodes, principally located in the lower leg.
8	"	Compound fractures of the thigh, with contusions of the knee and leg.
4	"	Divisions of arteries and nerves by incised wounds.
3	"	Aneurisms of arteries of the thigh
8	"	Mortification, following contusions of the thigh and leg.
5	"	Fractures of the tibia, with dislocation of the ankle-joint, and contusion of the tissues, producing tetanus and mortification.
74	Males.	

There was an entire recovery in all the female cases, from the operation of amputation. Those with fungus hæmatodes died within three years after amputation with tuberculated state of the lungs.

Out of the 74 cases of amputation of the thigh on the males, two died within twenty-four hours after the operation—one from secondary hæmorrhage, and the other from extreme feebleness at the time of the operation; no reaction followed. Nine died from the suppurative process on the stump following the operation, occasioned by venereal and scrofulous taints of the system; remained in a feeble state from five to twenty months, and died. The other 54 entirely recovered from the operation, and were healthy.

Those with fungus hæmatodes, who suffered amputation for that affection, passed under visceral disease, (the lungs and mesenteric glands) and died within four years after the operation, though apparently healthy for the first year or two.

Four that suffered with white swellings, after amputation declined, and perished with pulmonary consumption after four years.

For the first few years, in operating, I was governed by the directions laid down by C. Bell in his first work on operative surgery. In all cases where a limb was to be lost, from any sudden accident, I advised and practised immediate amputation, or before much reaction or inflammation commenced. I made the operation by a circular incision, as directed by Mr. Bell, turned back the integuments, and divided the muscles by applying the knife under the supported integuments; commencing on the inner margin of the vastus internus, and carrying the knife obliquely upward, making one sweep through the whole muscles to the bone, which bared the bone two or three inches higher than by the perpendicular incision. These incisions were expedited by an assistant elevating the parts as fast as they were divided, and using a retractor for the application of the saw. I usually dissected the muscles from the bone about an inch, and removed the periosteum only at a point for the saw. This mode of operating generally occupied from three to five minutes, and the dissection and turning up of the integuments gave the patient great pain. To secure the arteries, I always used the tenaculum of a small size, and a ligature of two flaxen threads well waxed, and left flat, on the large arteries, and one thread on the small ones, and secured every artery that threw out blood. After this, brought down the integuments and muscles over the bone, and secured with adhesive straps, six inches long; placed thick dossils of lint over these, and compresses and roller over the whole, so as to make an easy support to the parts. If spasms followed upon the stump, producing much agony, I let blood and gave opium. I used the animal ligature in some cases, tortion, and other means recommended for securing arteries, but have always succeeded best with the thread.

Although I always had success with the circular incision, and process, as mentioned in the first thirty cases of amputation, yet I afterwards occasionally operated by making two flaps, by dividing the integuments in a circular manner with a large scalpel, down to the muscles, and turning them back, and then dividing the muscles as in the circular operation. This mode subjected me to a serious difficulty.—The bone would incline to rise and protrude towards the opening at the upper part of the limb.

In a majority of the last twenty cases of amputation of the thigh, I have operated by making the flap-amputation; passing a narrow double-edged knife, and cutting from the bone outward on each side, making two flaps. These are semi-circular, their convexities extending in a parallel manner forward, and their terminations meeting at the upper and lower surface of the limb, where the knife entered and passed out.

I have operated a few times by cutting in a semicircular manner from the surface to the bone, making two flaps. This gives more pain to the patient than the mode of cutting from the bone outward. The painful part of the operation, viz., cutting the soft parts, can be made in the first manner very quick, and the patient saved from much distress. The time occupied by me generally, in ordinary cases, is from thirty to forty seconds, and in every instance a quick union of the flaps and sound state followed by the first intention.

I have met with no instance of nervous irritation, or difficulty in securing arteries, after operating in this manner, as recently reported by some. In emaciated cases, I should still prefer the circular operation; but in this matter I would advise every operator to consider the nature of his case, and adjust means accordingly.

AMASA TROWBRIDGE.

Watertown, N. Y., Oct., 1841.

INTERMENTS *in the City and Liberties of Philadelphia, from the* 16*th of October to the* 23*d.*

Diseases.	Adults.	Children.
Apoplexy	1	1
Burns,	0	1
Cancer,	1	0
Croup,	0	2
Congestion of brain,	0	1
Childbed,	1	0
Consumption of the lungs,	14	2
Convulsions,	1	4
Diarrhœa,	2	0
Dropsy,	0	1
—— head,	0	1
Disease of the Brain,	1	1
—— Heart,	1	0
—— Bowels,	1	0
Drowned,	2	0
Dysentery,	0	2
Debility	0	1
Epilepsy,	1	0
Fever, Remittent,	1	0
—— Bilious,	2	0
—— Typhus,	1	1
—— Typhoid,	1	0
—— Scarlet,	0	4
Fungus,	0	1
Inflammation,	1	0
—— Breast,	0	1
—— Lungs,	3	1
—— Stomach,	1	0
—— Bowels,	2	1
—— Liver,	1	0
—— Uterus	1	0
Carried forward,	39	27
Brought forward,	39	27
Intemperance,	3	0
Marasmus,	2	3
Morbus Brightu,	1	0
Old age,	4	0
Palsy,	1	0
Pleurisy,	1	0
Rupture of Urethra,	1	0
Small pox,	4	5
Still-born,	0	7
Suicide,	1	0
Tetanus,	1	0
Tabes Mesenterica,	0	1
Total,	101	58 43

Of the above, there were under 1 year, 22

From	1	to 2	6
	2	to 5	10
	5	to 10	2
	10	to 15	0
	15	to 20	3
	20	to 30	13
	30	to 40	13
	40	to 50	13
	50	to 60	4
	60	to 70	5
	70	to 80	8
	80	to 90	2
Total,			101